

8-Hour “Fueling for Success” Protocol

This step-by-step fueling protocol is great for any type of endurance activity (running, cycling, mountain biking, etc.) up to 8 hours. It’s super easy to put together, it’s just as easy to follow, it doesn’t require that you carry a ton of stuff on your bike or body, it will save you time, and, best of all, it’s highly effective. If your endurance activity extends beyond 8 hours, you can simply repeat the 8-hour plan.

Before you get to the fueling protocol, here is some very important and useful information...

5 Simple Ways to Improve Athletic Performance Now

By: Steve Born

While there are numerous steps that you can (and should) take to optimize athletic performance, here are a couple of super easy ones. Start with these right away and you’ll experience noticeably rapid improvement in your endurance.

1) Stay properly hydrated all day long. With approximately 60% of your body being comprised of water, it goes without saying that it’s vitally important to maintain optimal hydration status all day long. Unfortunately, a lot of people—perhaps you?—live in a state of perpetual dehydration, and that negatively affects athletic performance and overall health. Starting now, gradually increase your fluid intake—primarily from pure, clean water—so that the total number of ounces you’re drinking on a daily basis is equal to 0.5 to 0.6 of your body weight in pounds (e.g., 180-lb athlete should consume 90 – 108 ounces of fluids daily, in addition to what is being consumed during exercise). During exercise, drink 16-26 ounces per hour, and up to 28 ounces per hour during hot weather.

2) Fuel lean. It’s interesting to know how many calories you’re burning every hour during exercise; however, that amount isn’t really a factor in terms of how many calories your body can accept in return from your fuel donation. The goal of caloric intake is to consume the least amount necessary to maintain energy levels where you want and need them to be hour after hour. For the majority of athletes, this represents an intake of 120-180 calories per hour. Larger athletes (200+ lbs.) can consume 200-or-slightly-more calories. And if you find that’s not quite enough calories, that’s an easy fix—you simply consume a few more. Remember, it is ALWAYS easier to fix a “not enough” problem than an “uh oh, I overdid it and now my stomach is rebelling” problem.

3) Ditch the sugar. Some fuels are comprised of a combination of simple sugars (glucose, sucrose, fructose, etc.) and complex carbohydrates (maltodextrin), formulated under the premise that your body will be able to produce more energy on a per-minute basis using multiple carbohydrate sources compared to a single carbohydrate source. Remember, though, that the subjects in those “multi-carb”

studies were exercising at such low intensities—a recovery pace, at best—that they could probably consume anything without issue. Instead, choose complex carbohydrates (maltodextrin), such as in Hammer Nutrition's [**Hammer Gel**](#), [**HEED**](#), [**Sustained Energy 2.0**](#) or [**Perpetuem 2.0**](#). Unlike simple sugars, complex carbohydrates provide quick-acting, longer-lasting energy and cause no stomach issues even at high intensity efforts.

4) Don't eat for 3 hours prior to your workouts and races. By refraining from consuming any calories in the 3-hour period prior to your workouts and races, you put your body in the ideal physiological state to use its finite stores of muscle glycogen most efficiently, while also utilizing the vast amounts of calories from body fat stores more effectively. Adopt this practice in all your workouts—even the early morning ones—and you'll start seeing massive improvements in your endurance in a relatively short time. Note: If you must have some calories prior to the start of exercise, consuming something that's easy to digest (e.g., a serving of Hammer Gel) 5-10 minutes prior to the start—but no further out—is acceptable.

5) "Refill the tank" ASAP after all your workouts. Your body wants to reward you for the efforts you made in training, strengthening the immune system, rebuilding muscle tissue stronger, and storing more minutes of readily available fuel (glycogen) in the muscles. All you have to do to enjoy all of these endurance-enhancing benefits is supply your body with the materials it needs right away—ideally within the first 30 minutes after exercise (the sooner the better)—meaning complex carbohydrates and high-quality protein such as found in [**Recoverite**](#) and [**Organic Vegan Recoverite**](#).

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1) Primary-to-sole fuel is [**Perpetuem 2.0**](#) or [**Sustained Energy 2.0**](#). These are our long-duration fuels, containing complex carbs, protein, and key auxiliary nutrients (Perpetuem also contains a small amount of healthy fat). These are both such complete fuels that you could use them as your sole source of calories from beginning to end. That said, I do like some variety in the menu, so I alternate with other Hammer Nutrition fuels.

Each scoop of [Perpetuem 2.0**](#) contains 90 calories.** I (Steve Born) personally use 2.25 scoops of Perpetuem 2.0 an hour, which supplies 202.5 calories, an amount that works well for larger athletes like me (I'm 200 pounds). For light-weight athletes, 1.0 scoop (90 calories) to 1.25 scoops (112.5 calories) per hour works well. Medium-weight athletes will find that 1.50 scoops (135 calories) to 2.0 scoops (180 calories) per hour is an excellent amount.

Each scoop of [Sustained Energy 2.0**](#) contains 100 calories.** I (Steve Born) personally use 2.0 scoops an hour, which supplies me with 200 calories. For light-weight athletes, 1.0 scoop (100 calories) to 1.25 scoops (125 calories) per hour works well. Medium-weight athletes will find that 1.50 scoops (150 calories) to 1.75 scoops (175 calories) per hour is an excellent amount.

The advantages of the multi-hour fuel bottle

As far as **Perpetuem 2.0** and **Sustained Energy 2.0** are concerned, instead of making a 1-hour bottle, which would mean I'd have to drink a full bottle of flavored/semi-flavored liquid hour after hour (which I wouldn't like), while also having to stop and make more (which burns up precious time), I would make a bottle of Perpetuem 2.0 or Sustained Energy 2.0 that contains a few hours' worth of fuel. To make (for example) a 4-hour bottle of fuel I'd start by using the smallest water bottle I have (less flavored drink mix I have to consume). I'll fill that water bottle 1/3 full of water, add a couple of scoops of Perpetuem 2.0 or Sustained Energy 2.0, put the lid on, and shake well. I'll repeat the process until I've mixed the appropriate number of scoops in my one bottle (9 scoops for Perpetuem 2.0 and 8 scoops of Sustained Energy 2.0). Now, because I have 4 hours of fuel in one bottle, I only have to drink 1/4 of that bottle every hour, augmenting that with water from another source to take care of my hydration needs.

Again, the benefits of using a multi-hour bottle of fuel:

- I don't have to drink so much volume of flavored liquid hour after hour. Because I have 4 hours' worth of fuel in one bottle, I only need to drink 1/4 of the bottle every hour, augmenting that with plain water from another source (water bottle, hydration pack) to take care of my hydration needs. I personally find—as a lot of athletes do—that plain water quenches my thirst better than liquid fuels do, and drinking water to cleanse the palate makes taking another drink of flavored fuel even more palatable.
- Because I have 4 hours of fuel in my bottle, I don't have to stop and make more every hour, which saves me time.

If you need to, take a Sharpie pen and mark your bottle off into four equal sections. This will give you a visual as to how much to drink on a given hour.

NOTE: If the weather is going to be hot, make your 4-hour bottle the night before and put it in the freezer. Perfectly acceptable, and it will keep the mixture cold for a longer period of time.

2) I would carry a full **Hammer Flask** of **Hammer Gel**. This holds 5 servings, which easily covers 2 hours' worth of calorie requirements, and for some 2.5 hours. Plus, it is a LOT LESS MESSY than the single-serving packets.



3) A great option for some solid food during my 8-hour fueling plan, I'd consume 1/2 to 2/3 of a **Hammer Bar**. Super easy to chew, really tasty, and quite satisfying.

4) I use **Endurolytes** in capsule form and I take a dose 15-30 minutes prior to the start, and every hour during, to cover my electrolyte requirements. The dose ranges from 1-6 capsules per hour, with most athletes using 2-4 capsules per hour. For **Endurolytes Extreme** the usual dose is 1-2 capsules, with the first dose taken 15-30 minutes prior to the start, with additional doses every hour during. If you prefer to drink your electrolytes versus taking capsules, 1-3 tablets of **Endurolytes Fizz** or 1-2 scoops of **Endurolytes Extreme Powder** added to your water bottles will be sufficient in fulfilling an hour's worth of electrolytic mineral requirements.

So, in 1 bottle, 1 flask, and 1-2 bars I have all the fuel I need to take care of my calorie needs for 8 hours. A **flip-top capsule dispenser** will carry enough **Endurolytes** for at least 8 hours, oftentimes more, and it'll easily carry all of the **Endurolytes Extreme** you'll need.



Here's a possible fueling plan using the above-listed fuels:

- Hour #1 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #2 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #3 – ½ to ¾ Hammer Bar+ water + Endurolytes (or Endurolytes Extreme)
- Hour #4 – Up to ½ flask of Hammer Gel + water + Endurolytes (or Endurolytes Extreme)
- Hour #5 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #6 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #7 – ½ to ¾ Hammer Bar+ water + Endurolytes (or Endurolytes Extreme)
- Hour #8 – Up to ½ flask of Hammer Gel + water + Endurolytes (or Endurolytes Extreme)

SPECIAL NOTE: On a hot-weather day consume Perpetuem in the first four hours...

- Hour #1 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #2 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #3 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #4 – ¼ bottle of Perpetuem 2.0 or Sustained Energy 2.0 + water + Endurolytes (or Endurolytes Extreme)
- Hour #5 – ½ to ¾ Hammer Bar+ water + Endurolytes (or Endurolytes Extreme)
- Hour #6 – Up to ½ flask of Hammer Gel + water + Endurolytes (or Endurolytes Extreme)
- Hour #7 – ½ to ¾ Hammer Bar+ water + Endurolytes (or Endurolytes Extreme)
- Hour #8 – Up to ½ flask of Hammer Gel + water + Endurolytes (or Endurolytes Extreme)

5) As soon as possible when the workout/event is completed, be sure to consume a 2-scoop serving of **Recoverite** or **Organic Vegan Recoverite**. The complex carbohydrates will restock the muscle cells with fuel (so that you're not "on empty" for tomorrow's workout), the protein will help repair/rebuild the lean muscle tissue while also reducing soreness, and the glutamine (amino acid) will provide outstanding support for the immune system.